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## ABSTRACT OF THE DISCLOSURE

5 An x-ray image detector suitable for radiology has an active matrix substrate with scanning and read-out circuits. Over this active matrix substrate, which can be a two dimensional array of TFTs associated with a storage capacitance, there is deposited a photoreceptor made of a thin layer of amorphous selenium based multilayer structure. The photoreceptor is covered with a light-transparent electrode on top of which there is provided a scintillator. The indices of refraction of the scintillator and of the selenium based multilayer may be matched with the use of the biasing electrode.